

**REMARKS**

Claims 1-22 are pending. Claims 1-3, 5, 6, 9, 11, 13, 17, and 19 are amended. The amendments have no bearing on patentability as they deal with formalities of practice, not lack of clearness in the claims. Further, replacement formal drawing sheets for Figs. 1-7 are filed herewith in response to the objection of the drawings. No new matter has been added.

**I. Information Disclosure Statement**

The Office Action indicates that Information Disclosure Statement filed on March 31, 2005 fails to comply with the provisions of 37 CFR 1.97 and 1.98 because reference (3) does not include a title or author. Applicants are currently in the process of obtaining the requested information and will file a Supplemental Information Disclosure Statement submitting the requested the information once this information is obtained.

**II. Claim Objections**

In paragraph 3, on page 3 of the Office Action, claims 1-20 were objected to for minor informalities. In response, Applicants have amended the claims. Thus, withdrawal of the objection is respectfully requested.

**III. §112 Rejection**

In paragraph 5, on page 3 of the Office Action, claims 1-10 were rejected under 35 U.S.C. §112, second paragraph, as being indefinite. Responsive to the rejection, claims 1 and 2 have been amended. Accordingly, withdrawal of the rejection is respectfully requested.

The Office Action indicated that claims 1-10 were not examined. Because claims 1-10 were present but not examined, Applicants respectfully request that, if the Office determines that the claims are not presently in condition for allowance, the Office issues the next Office Action as a non-Final Office Action, where all of the claims 1-22 are examined.

**IV. §102 Rejection**

In paragraph 7, on page 4 of the Office Action, claims 11-22 were rejected under 35 U.S.C. §102(a) as being unpatentable over an article entitled "Real-time analysis of rhythmic gene expression in immortalized suprachiasmatic nucleus cells" co-authored by Gregg C. Allen and David J. Earnest (hereinafter referred to as "Allen"). Applicants respectfully traverse the rejection.

Allen fails to disclose or suggest a measurement controlling means to output a control signal for receiving a luminescence measurement result group as claimed in independent claims 11 and 17. Allen discloses only the fact that bioluminescence activity associated with fos/luc transgene expression was measured in constant darkness at 30°C using a multiplate Packard TopCount scintillation counter. Each well was counted for 1 minute every 1.7 hours, and quantitative luminescence measurements at individual timepoints were collected for 36 hours and reported as counts using specialized software developed at the NSF Center for Biological Timing (Allen, page 2028).

In Allen, the Examiner may assert that the multiplate Packard Topcount scintillation counter corresponds to Applicants' photon detector 9 and the specialized software corresponds to Applicants' external computer 11. However, the claimed invention provides a built-in computer 10 in addition to the photon detector 9 and the external computer (paragraphs [0031] of the specification). The built-in computer functions as a measurement controlling means, as recited in independent claims 11 and 17.

This feature of the invention addresses and solves the problems associated with Allen. As described in paragraph [0032] of the specification, if the real-time bioluminescence monitoring is carried out on the computer to control the hardware, the bioluminescence measurement may be disturbed due to an error of the operator. This disturbance may affect

the culture conditions of the organism on the cultivating unit. Fluctuations may also occur on the measurement apparatus and cultivating unit when the operator exits and enters the room.

However, the claimed invention avoids such problems because the built-in computer 10 is provided as a measurement controlling means. Because Allen fails to disclose or suggest a measurement controlling means which corresponds to Applicants' built-in computer 10, Allen does not disclose or suggest Applicants' invention.

Accordingly, Allen does not disclose or suggest independent claims 11 and 17 or claims 12-22 depending from claims 11 and 17, for the reasons addressed in claims 11 and 17 and for the additional features recited therein. Reconsideration and withdrawal of this rejection are respectfully requested.

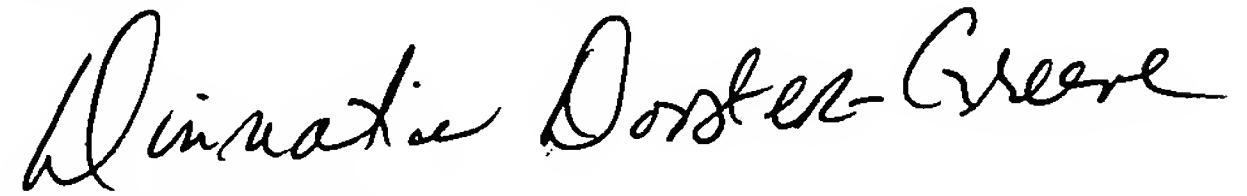
In addition, Applicants respectfully submit that claims 1-10, although these claims were not examined, are patentable over the applied reference Allen. Applicants respectfully submit that certain clear and important distinctions exist between all of the claims of the invention and Allen. Applicants submit that these distinctions are more than sufficient to render all of the claims of the invention unanticipated by and unobvious in view of Allen.

**V. Conclusion**

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable consideration and prompt allowance of claims 1-22 are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,



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JAO:DJD/tbh

Attachments:

Petition for Extension of Time  
Replacement Sheets (Figs. 1A, 1B and 2-7)

Date: May 8, 2006

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**Amendments to the Drawings:**

The attached formal drawing sheets for Figs. 1-7 replaces the original sheets containing Figs. 1-7.

Attachment: Replacement Sheets (7)